

## REMARKS

Claims 17-24, 26-30, 32, 44-46, 48-49, 54, 60-62, and 68-70 are pending in the application. Claims 17, 32, and 44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,535,383 to Gower in view of U.S. Patent No. 5,381,545 to Baker et al. Claims 18, 20, 26, 45, 60-61, and 68-70 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,535,383 to Gower in view of U.S. Patent No. 5,381,545 to Baker et al. and U.S. Published Patent Application No. 2003/0065546 to Gorur et al.. Claims 19, 21-24, 27-30, 46, 48, and 49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,535,383 to Gower in view of U.S. Patent No. 5,381,545 to Baker et al., U.S. Published Patent Application No. 2003/0065546 to Gorur et al., and U.S. Patent Application No. 2002/0091539 issued to Yin et al. Claims 54 and 62 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,535,383 to Gower in view of U.S. Patent No. 5,381,545 to Baker et al., U.S. Published Patent Application No. 2003/0065546 to Gorur et al., U.S. Patent Application No. 2002/0091539 issued to Yin et al., and “Pi: A New Approach to Flexibility in System Software” to Kulkarni (hereinafter “Kulkarni”).

Reconsideration is requested. The rejections are traversed. No new matter is added. Claims 17, 32, and 44 are amended. Claims 72-76 are added. Claims 17-24, 26-30, 32, 44-46, 48-49, 54, 60-62, 68-70, and 72-76 remain in the case for consideration.

New claims 72-73 and 74-75 recite features that were previously found in claims 17 and 44, and had originally been dependent claims.

The Applicant notes that the Examiner attached “Existence Dependency: The Key to Semantic Integrity Between Structure and Behavioral Aspects of Object Types” by Snoeck and Dedene, IEEE Transactions on Software Engineering, Vol. 24, No. 4, pages 233-251 (April 1998) to the Office Action, but did not list this reference on form PTO-892. The Applicant respectfully requests that the Examiner list this reference on form PTO-892 at the Examiner’s earliest convenience.

## TELEPHONE INTERVIEW

On December 9, 2008, the undersigned spoke with the Examiner Ly about the application. All the claims were discussed, with specific reference to claims 17, 22, and 62. No agreement was reached.

The undersigned identified several differences between the claimed invention and some of the references cited by the Examiner, in particular Gower, Baker, and Yin. The Examiner agreed that amending the independent claims to recite that at least one of the first object and second object is a file object would distinguish the claims over Gower, although the Examiner would not state whether such an amendment would make the claims allowable.

## REJECTIONS UNDER 35 U.S.C. § 103(a)

### *Rejections over Gower in view of Baker*

The Examiner rejects claims 17-24, 26-30, 32, 44-46, 48-49, 54, 60-62, and 68-70 as being unpatentable over Gower in view of Baker (and possibly other references). The Applicant respectfully disagrees.

First, Gower teaches a system for managing contracts between databases or within the same database. More particularly, the contract in Gower is “between principals” (*see* Gower, column 2, line 6) and defines “the terms and conditions of the relationship” between the principals (*see* Gower, column 2, lines 7-8). According to Gower, “[d]atabase contracts are analogous to legal contracts which allow individuals or companies to make binding agreements. The key difference is that database contracts operate within a computational system” (*see* Gower, column 2, lines 13-16). In other words, the database contracts of Gower are legal contracts, but operating in the world of software. This means that Gower’s contracts include all of the necessary limitations present in a legal contract, such as “terms and conditions” and “constraints” (*see* Gower, column 2, lines 8-9). In contrast, contract objects within the claimed invention are not so limited. A contract object “can be used to establish bi-directional relationships between any object types” (*see* specification, page 4, lines 17-18); contract objects are not analogous to “legal contracts”, are not defined only between “principals”, and are not limited to including specific “terms and conditions” like a legal contract would.

Second, Gower makes it clear that a database contracts must be established by the principals. According to Gower, “[a] principal is an entity that can be authenticated and that has

independent standing or ‘authority’ in the system. Thus, a principal may represent a human user, a corporate entity or even an application program (as long as such program is recognized by the system as having the requisite authority)” (see Gower, column 1, line 66 through column 2, line 4). The combination of these two statements by Gower makes it clear that the creation of a database contract within Gower is not an automatic operation: it requires the active participation of the principals.

In contrast with Gower, the creation of a contract object as claimed does not require the involvement of any “principal”. Contract objects can be created automatically by the system. Claims 17 and 44 are amended to reflect the fact that the contract object can be created without the involvement of any user or even the objects being related by the contract object. As Gower requires the active participation of not one but both “principals”, Gower does not teach a contract object as claimed. Further, none of Baker, Yin, Gorur, or Kulkarni teach a contract object as claimed. Finally, even if any of Baker, Yin, Gorur, or Kulkarni did teach a contract object that could be created without the active participation of the principals, Gower’s express teaching that the contract object must be created between the principals would teach away from the combination with Baker, Yin, Gorur, or Kulkarni.

Third, the Applicant believes the Gower teaches away from the Examiner’s proposed combination with Baker. The Examiner sites to column 9, lines 39-44 of Gower as teaching the concept of recording an entry in the transaction log (these features, previously in claims 17 and 44, are now recited in claims 72-73 and 74-75). According to Gower, “database auditing... keeps track of what actions were done by which principals.... In this fashion, responsibility for actions in the system can still be traceable to individuals” (see Gower, column 9, lines 40-44). In other words, Gower is keeping an audit trail for its traditional purpose: to be able to review completed actions and identify who is responsible for their execution.

In contrast, Baker teaches a system for a data backup and recovery. According to Baker the system includes “means for recovering the database by reinstating the backup copy and applying the updates contained in any log entries made after said recovery point” (see Baker, column 2, lines 39-41). The LUWs (logical units of work) that Baker describes as being deletable when complete in column 8, lines 34-42 are potentially such a log entry. But this means that Baker is describing not an audit trail, but rather a way to reconstruct actions that were ordered but not finished. Once such actions are completed, they are definitively part of the

system, and the log entry does not need to be retained. But if the log entry in Baker can be deleted as soon as the action is complete, then the entry is not available as part of an audit trail within Gower for purposes of being able to determine which individuals were responsible for actions performed within the system. This means that Gower and Baker are incompatible: Baker says to delete something that Gower specifically needs to retain.

Fourth, the Examiner cites to example 4 of Gower (column 5, lines 7-18) as teaching receiving events. The Applicant respectfully points out that according to example 4 of Gower, the (database) contract is not created until after the notification mechanism is implemented and verified by both principals. In other words, the (database) contract of Gower is dependent upon the notification mechanism being in place first. In contrast, in the claimed invention, the contract object exists before the first event is received, so that the rule associated with a contract object can be accessed. Until the contract object exists, there is no mechanism to receive the event as claimed.

As Gower teaches a database contract that includes limitations not found in the contract object of the claimed invention, as Gower teaches that a notification mechanism must be in place before the database contract can exist, as Gower teaches a database contract that requires participation by the principals, and as Gower teaches away from the combination with Baker (and Yin, Gorur, and Kulkarni), claims 17, 44, and 72-75 are patentable under 35 U.S.C. § 103(a) over Gower in view of Baker (and possibly in view of Yin, Gorur, and Kulkarni). Accordingly, claims 17, 44, and 72-75 are allowable, as are dependent claims 18-24, 26-30, 32, 45-46, 48-49, 54, 60-62, 68-70, and 76.

*Rejections over Gower in view of Baker, Yin, and Gorur*

In rejecting claims 22-23, 28-30, and 48-49, the Examiner alleges that Yin describes a contract object comprising locators and identifiers, citing FIG. 9, Contract class, ProviderAccountId, ConsumerAccountId, and ParentContractId (*see* Office Action dated September 18, 2008, page 9). But Yin's locators and identifiers, such as ProviderAccountId, ConsumerAccountId, and ContractId, are not stored in the contract object or the first/second objects (i.e., trading partners) as established in the claims. Instead, Yin's locators and identifiers are stored in the database 370 in the hub component 106 of system 300 (*see* Yin, Page 8, [0091], [0138], and FIG. 3). Yin's hub is a central information processing system to manage orders and

contracts among trading partners, rather than a contract object or the first/second objects (*see* Yin, Page 5, [0079], and FIG. 1). Accordingly, claims 22-23, 28-30, and 40 8-49 are patentable under 35 U.S.C. § 103(a) over Gower in view of Baker and Yin, and therefore are allowable.

In the telephone interview of December 9, 2008, the Examiner indicated that amending the independent claims to recite that at least one of the first object in second object was a file object would make the claims allowable over Gower. The Applicant notes that claim 27 recites such a feature. However, given Gower's specific definition as to what constitutes a "principal", the Applicant respectfully suggests that a file object cannot be a principal. A file object is not a human user or a corporate entity: it is a software object. Further, a file object is not even an application program: a file object is simply a collection of data. (While it is true that an application program can be stored within a file, the application program is only different from any other file when it is executing. Outside of execution, the file storing the code that is the application program is no different from any other file, and is treated as such.) Thus, a file object would not be given the "requisite authority" required in Gower to be a principal, and therefore Gower teaches away from the combination with Gorur. Accordingly, claim 27 (and new claim 76) is patentable under 35 U.S.C. § 103(a) over Gower in view of Baker, Yin, and Gorur, and is therefore allowable.

For the foregoing reasons, reconsideration and allowance of claims 17-24, 26-30, 32, 44-46, 48-49, 54, 60-62, 68-70, and 72-76 of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.



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Ariel S. Rogson  
Reg. No. 43,054

MARGER JOHNSON & McCOLLOM, P.C.  
210 SW Morrison Street, Suite 400  
Portland, OR 97204  
503-222-3613  
Customer No. 45842